Nordita program on

"Computational challenges in nuclear and many-body physics"

Sept. 15-Oct. 10, 2014, Stockholm
1st Circular

Dear colleagues,

We take great pleasure in inviting you to the Nordita program on "Computational Challenges in Nuclear and Many-Body Physics", to be held in Stockholm during the period between Sept. 15 and Oct. 10, 2014.

We intend in this program to discuss and compare advanced theoretical methods that are being applied at present in nuclear physics, condensed matter, cold atoms and quantum chemistry. We propose this workshop as a means to bring together all these related communities with the goal of creating an enriching dialog across the disciplines. The subjects we plan to cover include

- Status of on-going and planed large-scale experimental projects and the theoretical challenge
- Configuration interaction approaches in many-body physics
- Mean field models and energy density functional theory (Symmetry breaking and restorations)
- Coupled-cluster theory
- Clustering in many-body systems
- Continuum and open quantum systems
- Quantum Monte Carlo approaches
- Density matrix renormalization Group and Tensor Networks
- Simple aspects of complex matter
- Biophysics and medical physics
- Numerical approaches to correlated matter and implementations of novel and future hardwares

Detailed information may be found in our webpage below
http://www.nordita.org/cc2014/

Location

The program will take place at the AlbaNova University center in Stockholm where Nordita and the Royal Institute of Technology (KTH) are located. Nordita is the Nordic Institute for Theoretical Physics, and its purpose is to carry out research and strengthen the Nordic collaboration within the basic areas of

theoretical physics. KTH is the largest, oldest and most international technical university in Sweden.

The AlbaNova University center is located at the northern end of the KTH main campus, Stockholm (10 minutes walk from the subway station Tekniska Högskolan)

Arlanda is the main airport in Stockholm. To come from Arlanda to Stockholm Central, you can take an air coach (Flygbussarna) or fast train (Arlanda express). The fare for a taxi from Arlanda to Stockholm is usually fixed and is around 500 kr (60 Euro).

Application

If you want to apply for participation in the program, please fill in the application form on our program webpage. You will be informed by the organizers shortly after the application deadline whether your application has been approved. Due to space restrictions, the total number of participants is strictly limited. (Invited speakers are of course automatically approved, but need to register anyway.)

Application deadline: **31 March 2014**

A minimum stay of **one working week** is required and we encourage participants to stay for a period of at least two weeks.

There will be no registration fee for the program.

Accommodation

The participants are expected to take care of their own accommodation. There are quite a few hotels within walking distance from the conference venue, typically costing 80-150 Euros/night. Guesthouses are also available at a lower price. Nordita provides a limited number of rooms in the Stockholm apartment hotel BizApartments free of charge for invited speakers. It is hoped that we will have some additional money to cover travel (but no per diem) and/or accommodation expenses for other programme participants, particularly PhD students and young Postdoc fellows. Please let us know as soon as possible if you have such needs.

Organizers
BALATSKY, Alexander
DUKELSKY, Jorge
LIOTTA, Roberto
QI, Chong

For more information on the workshop, please refer to the workshop website: http://www.nordita.org/cc2014/
Please do not hesitate to contact the local organizers if you have any questions concerning your arrival and stay in Stockholm.

Please help circulate this information among your colleagues who may be interested in participation.

Looking forward to seeing you in Stockholm
Sincerely yours,
Chong Qi on behalf of the Organizing Committee

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